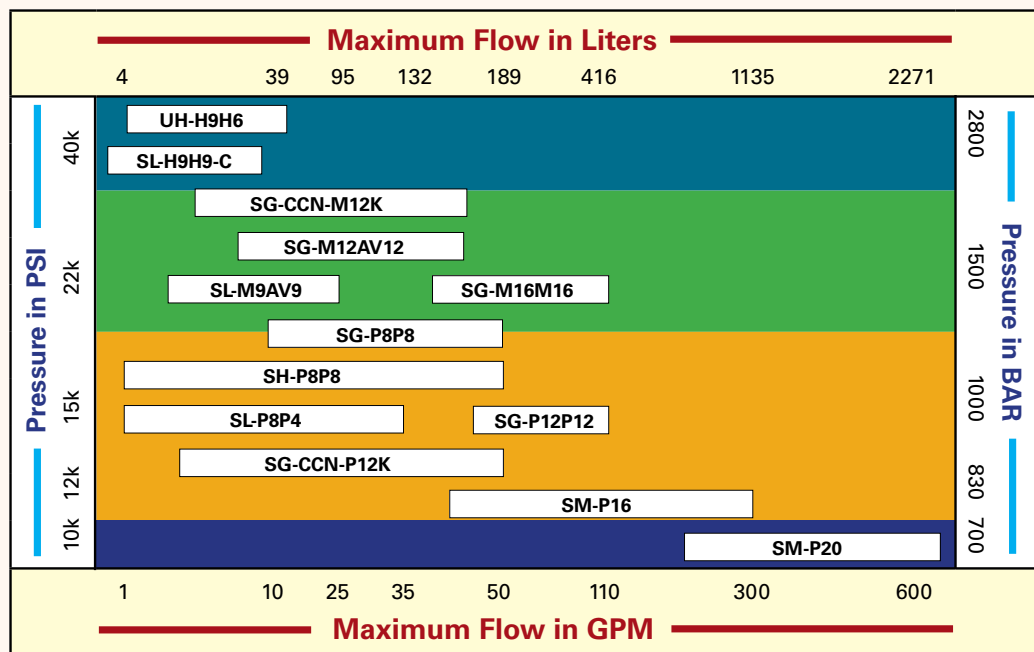


StoneAge® Rotary Couplings

ToolTalk™ - Choosing a Rotary Coupling

Delivering More of Your Pump's Power

StoneAge® supplies a wide range of rotary couplings (also called swivels). These swivels are primarily used on assemblies where rotation is driven by an air motor or hydraulic motor. They are also used in simple applications such as swiveling hose connections to the inlets of guns or equipment. They can also be used as swivels in hydraulic systems, but the user must be tolerant of the possibility of intermittent seal leaks as occur with the StoneAge® low torque seal design. Most are available with either a 0° (straight in) or 90° inlet connection.



There are four general models of rotary coupling that we offer. The smallest swivel is the **SL** line, most commonly used on lancing machines. They have flow capacities up to 25 gpm, depending on the model, and are offered in pipe thread up to 15,000 psi, medium pressure up to 22,000 psi and high pressure up to 40,000 psi. The next model up in flow capacity and size is the **SH** line, used primarily as a swiveling hose

connection. These can handle flow rates up to 40 gpm and are offered with 1/2 npt pipe threads for pressures up to 15,000 psi. The **SG** model line is the most versatile in connection options; these are capable of pressures up to 22,000 psi and flow rates up to 100 gpm depending on the variation. The comparable swivel to the **SG** for use at 40,000 psi is the **UH** model, capable of flows up to 20 gpm. The **SM** model is the largest swivel; these are made to handle very high flow rates of 300 to 600 gpm in pressures up to 12,000 psi. See our [Tool Selection Guide](#).

These rotary couplings do not have any speed control, and therefore cannot be used in self-rotary applications. The only exception to this is in the **SG-30**, where long arms tend to control the rotation speed the way a figure-skater uses her arms to slow down, but this is only effective down to an arm diameter of 18 inches. All of these swivels use grease for bearing lubrication.

In the **SG** line of swivels, we offer two types of high pressure seal. The most commonly used is the plastic and carbide slip seal combination, which is good for rotation speeds up to 500 rpm. For rotation speeds above this, we recommend another type of seal used in our **CCN** models which is a carbide against carbide mechanical face seal.

When choosing a rotary coupling it is also important to consider how the weight of the hose and its orientation to the swivel is going to be functioning. Attention must be given to how much side load that the weight of a hose is putting on a swivel. Too much weight and the swivel will be damaged. To fix this be sure to support the hose and not to rigid mount the swivel at both ends as this will damage the swivel also.